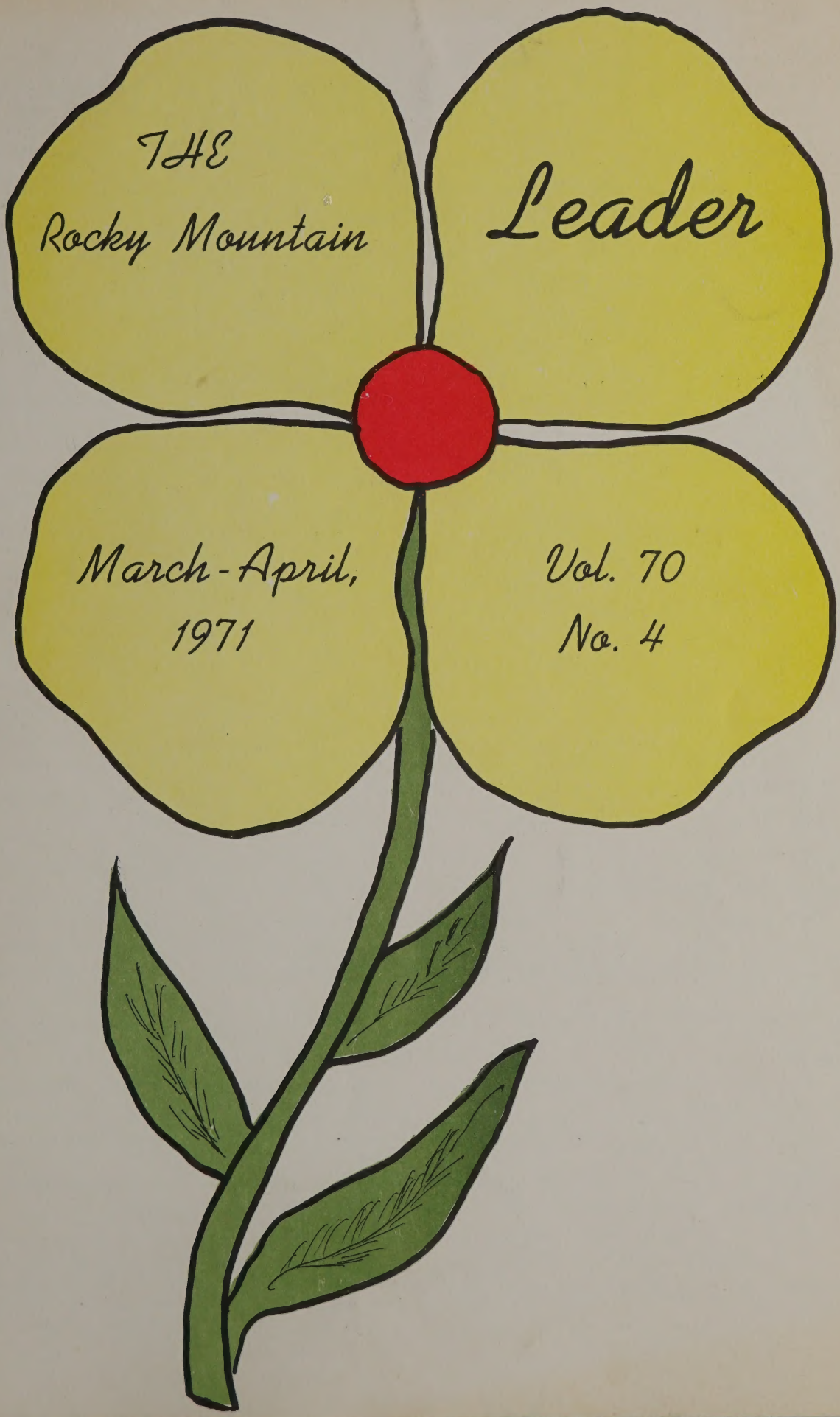
THE
Rocky Mountain
Leader
March-April,
1971
Vol. 70
No. 4

1970-1971 School Calender

OCTOBER

3 Saturday ..... Girl Scouts camping
4 Sunday ..... Girl Scouts return
9 Friday ..... Boy Scouts camping
11 Sunday ..... Boy Scouts return
21 Wednesday ..... Home visit, long weekend
22 Thursday ..... MEA Convention starts
24 Saturday ..... MEA Convention ends
25 Sunday ..... Children return
26 Monday ..... Classes resume
30 Friday ..... End of 1st Nine Weeks

NOVEMBER

6 Friday ..... Boy Scouts camping
8 Sunday ..... Boy Scouts return
25 Wednesday ..... Children travel home — **afternoon**
26 Thursday ..... Thanksgiving Day
29 Sunday ..... Children return
30 Monday ..... Classes resume

DECEMBER

18 Friday ..... Christmas Program
19 Saturday ..... Children travel home

JANUARY

3 Sunday ..... Children return
4 Monday ..... Classes resume
15 Friday ..... End of semester

FEBRUARY

5 Friday ..... Boy Scouts camping
7 Sunday ..... Boy Scouts return
12 Friday ..... Children travel home — **afternoon**
15 Monday ..... Children return
16 Tuesday ..... Classes resume

MARCH

13 Saturday ..... Klondike Derby for Boy Scouts
19 Friday ..... End of 3rd Quarter

APRIL

2 Friday ..... Boy Scouts camping
4 Sunday ..... Boy Scouts return
7 Wednesday ..... Children travel home — **afternoon**
11 Sunday ..... Easter
12 Monday ..... Children return
13 Tuesday ..... Classes resume
30 Friday ..... Boy Scouts camping

MAY

2 Sunday ..... Boy Scouts return
28 Friday ..... Last day of school
29 Saturday ..... Children travel home

Boy Scouts meet every Monday afternoon from 4 to 5:30.

Junior National Association of the Deaf meets every last Tuesday of the month, 8:00 to 9:30 p.m.

Cub Scouts meet every Tuesday afternoon, 3:10 to 4:15 p.m.

Brownies meet every Tuesday, 3:00 to 4.00 p.m.

Junior Girl Scouts meet every Wednesday, 4:10 to 5:00 p.m.

Explorer Post for Visually Impaired meets every Monday, 8:00 p.m.

THE
Rocky Mountain
Leader
March-April, 1971
Vol. 70 No. 4

Floyd J. McDowell, Editor
J. William Lenth and Robert J. Deming, Assistant Editors
Florence McCollom, Proofreader

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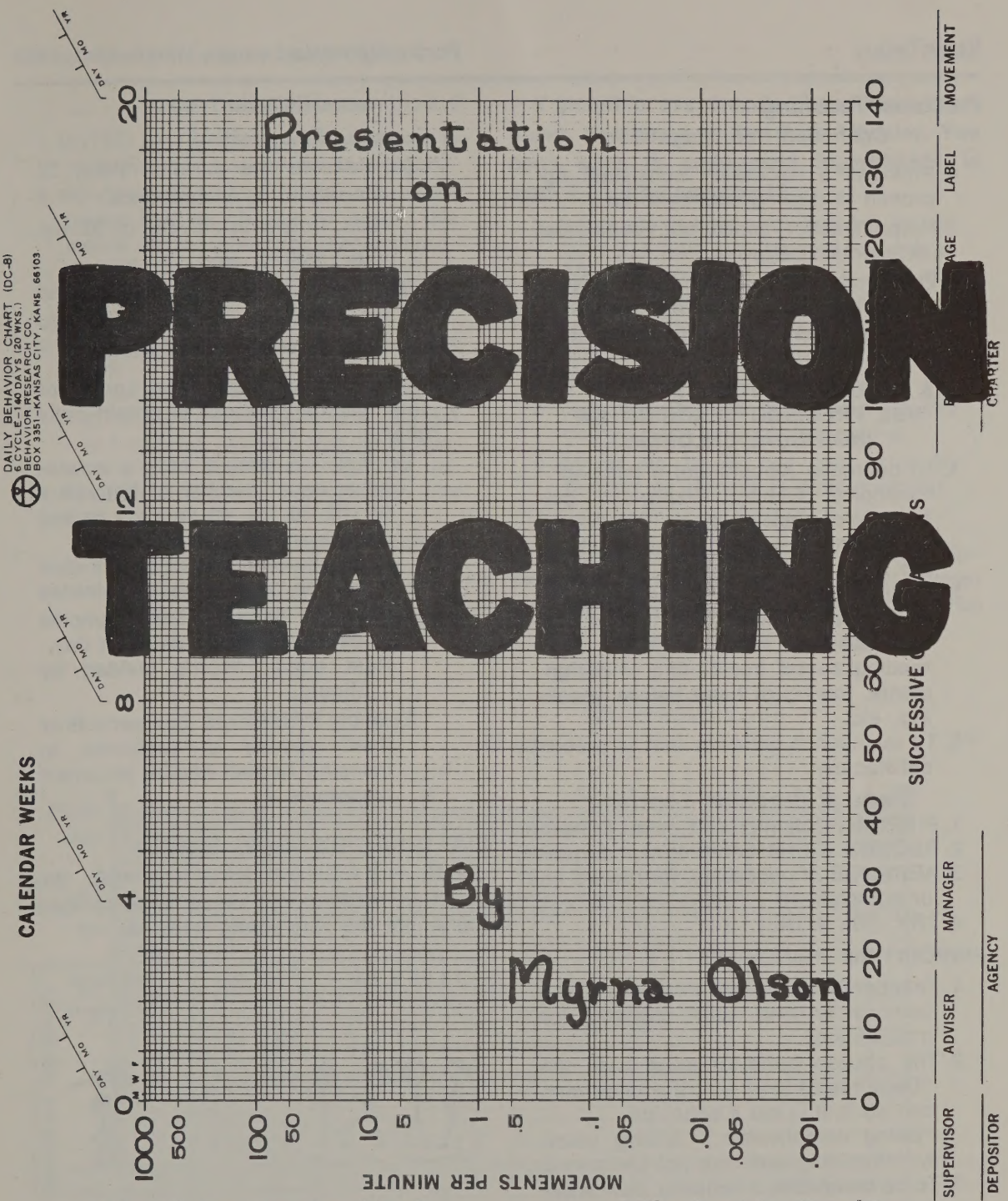


What IS Precision Teaching?

NOT a new method . . . But it is a set of procedures that can be used **with** any teaching method.

IT IS THE PROCESS OF **PRECISELY** DEFINING A BEHAVIOR, MEASURING ITS RATE OF OCCURENCE, AND BASING TEACHING DECISIONS ON THE RECORDED DATA.

Why Precision Teach?

1. To discover abilities and identify problems of individuals.
2. Gives an ongoing record of each child's progress.
3. Gives the teacher a better means of evaluating teaching methods.

Continued on Page Two

Precision Teaching . . .

Continued from Page One

4. Provides a necessary **consistent** approach to dealing with children.
5. Helps teacher accelerate, decelerate or maintain behavior.
6. On a long range basis, it can save a child the pain of being sent to a "special class" or having to repeat a grade.

AS A TEACHER, YOU MAY WISH TO USE PRECISON TEACHING ON INDIVIDUAL CHLDREN:

1. To decrease (decelerate) a behavior. Examples: Hitting, talking-out, getting-out-of-seats, typical "blindisms" as rocking, eye-poking, head-shaking, etc.
2. To increase (accelerate) a behavior. Examples: Number of written or oral responses in math, language, etc.; reading speed, completing of assignments, raising of hand before speaking, etc.
3. To maintain a behavior that is presently satisfactory.

Steps of Precision Teaching

1. PINPOINT (identify and count behavior)
2. RECORD (Chart behavior's occurrence)
3. ARRANGE (If necessary, for reward and/or punishment)
4. TRY, TRY AGAIN ! ! !

PINPOINTING PRINCIPLES

1. Teacher and/or student decides which behavior is **most** worth changing (or maintaining).
2. The chosen behavior must pass the "Dead man's test" . . . if a dead man can do it, it is **not** a behavior. "Being unmotivated," "Sitting quietly," "Looking sad" are not behaviors.
3. To be **countable,** a behavior must **show movement** and be **controllable.**
4. Count movement cycles such as: Behaver's hand (Subject) hits (Verb) his head (object)—equals 1 count (Behaver puts hand down; when he lifts it to hit head again—that equals a count of 2.)
5. Slice movement cycles . . . That is count "correct letters or words" written before "correct sentences."
6. Continuous Behavior:

   Example: Dishwashing

   (A) Measure the duration time: 32 minutes to do dishes once.
   Rate: 1 dishwash divded by 32 minutes—equals .03.

   (B) Count reminders (Number of times teacher reminds student to stop) Example: Head-shaking

7. Teacher may observe and count for only "sample" periods to obtain daily rates.

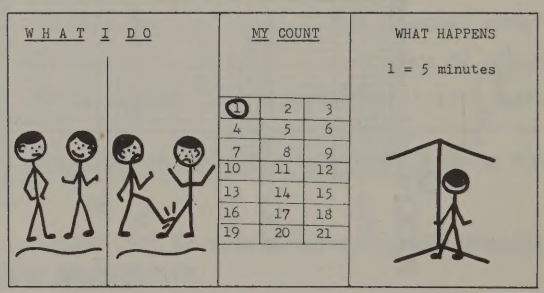
   Example 1: Without child's awareness, count number of behaviors for 10, 20, 30, 40 minutes or any convenient amount of time.
   Rate equals Number of talk-outs divided by number of minutes

   Example 2: Take 1 minute samples of child's reading rate each day.
   Rate equals Words divided by Minute.

   Example 3: Use fixed time periods or fixed number of problems to measure correct and/or incorrect responses.

FOR COUNTING—HOW ABOUT?

FOR HEARING HANDICAPPED: Wrist counters, marking tape on desk, using "countoons" for the very young such as:



FOR VISUALLY IMPAIRED: Timers, using paper punch, wrist counters, pegs or round-headed pins, or abacus.

DAILY CHARTING

Student self-charting saves teacher time and is often the only reinforcement needed to accelerate, decelerate or maintain the student's behavior.

CHARTING TERMS

1. RATED DAYS: days on which a rate is recorded and placed on the graph.
2. NO-CHANCE DAYS: days when behavior had no chance to occur. (No marks on the chart for these days.)
3. IGNORE DAYS: days when the behavior occurred, but no one counted it or charted it.
4. RECORD FLOOR: lowest rate you can chart.
   Example: Observe talk-outs for 20 minutes. Lowest count one can get is 1 talk-out. Dividing this by 20 minutes gives record floor rate of .05.
5. RECORD CEILING: highest rate you can chart
   Example: Give students 10 problems to work. Maximum of correct responses is 10 per minute.
   Record ceiling is 10 divided by 1 minute which equals 10.

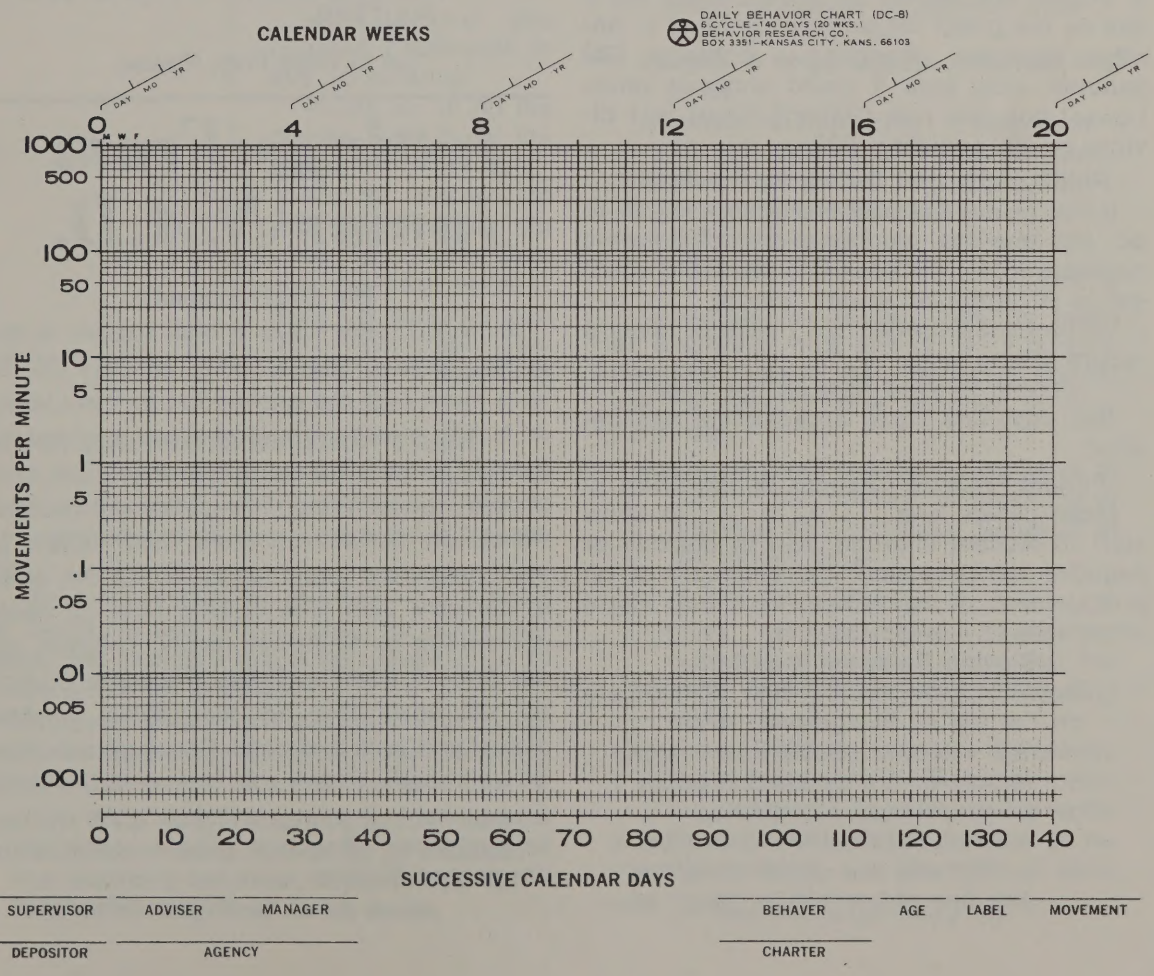
If possible use 6-cycle logarithmic chart paper, developed by Dr. O. R. Lindsley. You don't have to understand logarithmics in math ! ! ! Why use chart?

1. It is made to hold rates that are as low as 1 per 1000 minutes and as high as 1000 per minute. They are .001 and 1000 respectively on the chart.
2. You can chart 140 days of behavior and see relative "change" without daily bounce.
3. Converts absolute data into a relative comparison without computing.
4. Allows up to 90 per cent error by teacher or student in daily counting.

Six-Cycle Chart

Across the bottom there are 7 blanks: Supervisor—Person instructing advisor; Advisor—Person advising manager; Manager—You

Continued on Page Four



Precision Teaching . . .

Continued from Page Three

as teacher; Behaver—protege; age; Grade level description—Label; Movement cycle counted—Movement.

140 Successive Calendar Days—20 weeks; Heavy lines running up and down are Sundays; Small M-W-F at top left stands for Mon., Wed., and Fri.; The numbers 4, 8, 12, 16, 20 stand for the end of the 4th, 8th, 12th, 16th and 20th weeks; Write in the date every 4 weeks on Sunday to keep track of time started, time of changes, time stopped, etc.; Numbers up the side run from 0 to 1000 to record behaviors occurring as little as once in 1000 min. (16-hour day) or as often as 1000 times per min.

Putting a Record Floor on the Graph

If you observe a behavior for 1 minute, the least number of times it could occur (other than 0) is **once.** The lowest rate being 1 movement in 1 minute, equalling a rate of 1. A broken line should be drawn along the 1 line on the graph for a record floor of 1. Another example: Observing a behavior 500 minutes, least time it could occur is once. Lowest possible rate (Record Floor) is 1 divided by 500 equalling .002.

Putting a Record Ceiling on the Graph

If you give a child 20 problems in math to do, and you are recording correct answers per minute . . . the best rate the child could get is 20 problems in one minute.

20 problems divided by 1 minute gives a record ceiling of 20.

Putting Desired Rate on the Chart

Use wavy line along approximate rate desired.

Putting Program Changes on the Chart

Make curved line to show start of student charting, use of positive or negative reinforcement, discontinuing of an arrangement or any other event that might affect rate of a behavior.

Placing Rates on the Chart

1. Find 1 on the vertical line of numbers on the left of the graph:
   A. All numbers above this 1 stand for movement cycles that occur 1 or more times per minute.
      Example: One line above the 1 is "2"; one line above 10 is "20"; one line above 100 is "200," etc.
   B. All numbers below the number 1 stands for rates of behavior occurring less than once per minute.
   C. Remember to find the **rate** of behavior in movement cycles per minute you divide the number of movement cycles counted by the number of minutes observed.
      Example: Counted 20 talk-outs in 20 minutes: Rate is 20 T.O. divided by 20 minutes equals 1 T.O. a minute.

Practice plotting these rates:

5 talkouts in 1 minute equals 5 T.O. divided by 1 minute, rate of 5.

60 words read in 1 minute equals 60 words divided by 1 minute, rate of 60.

10 hits in 20 minutes equals 10 hits divided by 20 minutes, rate of .5.

D. You do not need to calculate daily behavior rates by dividing if you are short on time . . . use a RATE PLOTTER.

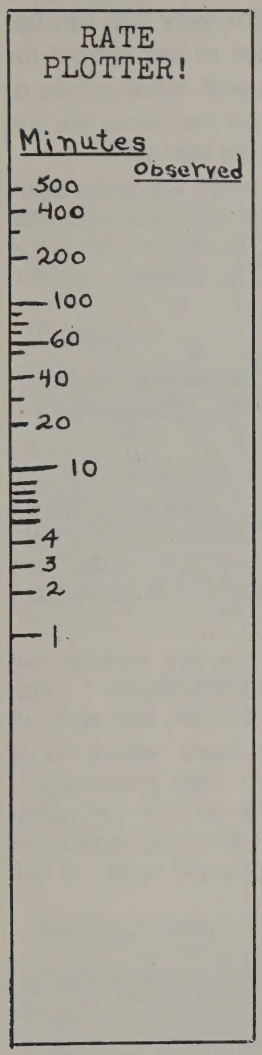
Go to Page Five, Please

Jottings From Junior N.A.D.

The Chili Supper

Jr. N.A.D. sponsored a chili supper in the dining room of our school, January 29, to earn money for the convention in Vancouver. Jr. N.A.D. members made posters and posted them in various stores around town. The chili supper was advertised on radio and on television. Jr. N.A.D. members sold tickets to their neighbors and friends during the week of January 29th. The tickets cost 75 cents per person or $2.50 per family; children under 6 were admitted free. The boys worked as bus boys; they set the tables, washed dishes and pots and pans. Some girls worked as waitresses, others sold tickets at the door. Some checked coats, and two girls worked as hostesses. They met people at the door. We earned $223.95.

—Howard Hammel



Find the number of minutes you are observing a particular behavior on the plotter.

Line up the hash mark of this number on the plotter with the number of movement cycles you counted during that time on the graph.

Look down at the number 1 on your plotter; make a mark on your chart for that day where the hash mark of this 1 hits the graph . . . This automatically tells you the rate per minute!

Example:

—Find 10 minutes on the plotter.

—Suppose you counted 2 talk-outs in this 10 minutes.

—Line up 10 on the plotter with 2 on the graph.

—Look down at your graph where the 1 on the plotter hits . . . the hash mark is lined up with the rate .2 on your graph! This means .2 movements per minute.

ANALYZING PLOTS ON YOUR CHART

—Draw a line through the most number of points; lay accelerator finder along this line . . . read acceleration or deceleration X1, X2, etc.

Allow student to do charting . . . if blind or unable to use 6-cycle chart for other reasons, use standard graph and make up a 6-cycle graph for yourself.

Standard graphs are available with raised lines for the blind. Six-cycle paper is being manufactured in braille right now.

IF SELF-CHARTING does not sufficently accelerate, decelerate or maintain the student's behavior, some further arrangemets may need to be made.

SOME HINTS ON ARRANGING

1. "Child usually knows best" what he likes and dislikes (when arranging for rewards and punishments).

2. Don't threaten a consequence or promise a reward which cannot be presented at all times.

3. Make a consequence "natural" if possible . . .

—For breaking things . . . have child repair

For talking-out . . . use something to discourage "mouth movements"

4. Give one "free" experience with positive reinforcements (rewards) to "whet child's appetite."

5. Adjust reinforcement and consequence ratio as behavior improves:

Example: At beginning—Give 1 chip (or other reward for 1 correct problem.)
Later—Require 2 correct problems for one chip.
(Maybe 5 chips equals 1 minute free time)

Example: At beginning . . . Less than 10 talk-outs equals no punishment; More than 10 equals Shot of tobasco sauce; Later . . . 5 talk-outs equals no punishment; more than 5 equals shot of sauce.

6. Sample reinforcers: Sounds (such as teacher's voice saying "very good"), gestures (such as smiles), tokens, stamps, scores, holes punched in work card, etc.

Example: Blind students carry cards to meal to be punched for presence or absence of a particular behavior at the dinner table.

7. Sample "decelerators"

—Have behaver repeat movement cycle many times . . . Example: For each "spit wad" thrown, have child make 10.

—Have behaver repeat movement cycle correctly . . . Example: Leaving room and re-entering correctly.

—Have behaver repair damage or replace object . . . Example: If child

Continued on Page Six

Precision Teaching . . .

Continued from Page Five

breaks something, have him "glue it together."

Remember This About Precision Teaching!

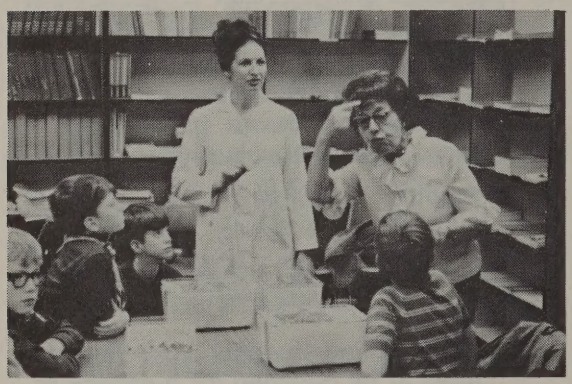
1. It is simple and after a short planning period with each student the student can take on any time-consuming steps.
2. You do **not** have to change present teaching style to use it!
3. The only "failures" recorded are those cases in which teachers refused to try it!

Classroom Chatter

from the Department for the Deaf

Corrected

The Research Center



Our class went to the Research Center of the Columbus Hospital. We saw many mice in cages. We saw baby mice, too. We had to be careful because the mice would bite our fingers. They have five thousand mice. They have forty different kinds. The doctor studies the blood of the mice. Sometime the doctor takes the skin from one mouse and puts it on another mouse. Mrs. Reickert said that some people have bad hearts. They can have a different good heart now. The doctor will give people some medicine to keep the heart.

Dr. Stimpfling talked to us. He showed us some kinds of blood. We saw some scales. They can weigh one hair. We saw a microscope. It makes things look very big. Mr. LeMieux has six microscopes at our school for science. We saw a room with many cages of mice. It has a lot of food for the mice. We did not know mice can help us feel well.

We saw our trip on TV when we came back to school. Mrs. Luke took the pictures with a TV camera. It was fun to talk about it because we could see it on TV. Then we remembered many things.

—Class 3

(The following four articles are imaginary stories written for Composition Class.)

A long time ago, I was a famous cowgirl in the West, and I lived in Montana. I knew how to rope cattle and horses. Once I captured a huge buffalo with a rope. I decided to keep it instead of killing it. I tried so hard to make friends with it.

One day I decided to ride the buffalo, but I fell off. I tried again and fell. Again I tried. Finally I got hold of the buffalo and rode it.

Next day I heard that there would be a rodeo the next week. So I kept practicing. I went to the rodeo with the buffalo. Everyone thought I was funny. But I won the rodeo and I was the most famous cowgirl roper in the rodeo.

—Darcy LeMieux

A boy walked around the backyard. He met a magician ant.

The magician ant said, "Do you want to become an ant?"

The boy said, "Okay."

The magician ant waved his fingers, then he said, "I was only fooling." The boy was angry and smashed the ant with his shoe. Then he walked into the house again.

—Howard Hammel

I went out to the forest and walked among the trees. It really was hard to walk through the big weeds. But it was a beautiful place.

One time I walked through the weeds and I noticed something moving. I was scared. Then I saw gray and black feathers and big yellow eyes. It was a small animal and I found out it was a baby owl. I left it alone because I thought the owl's mother would

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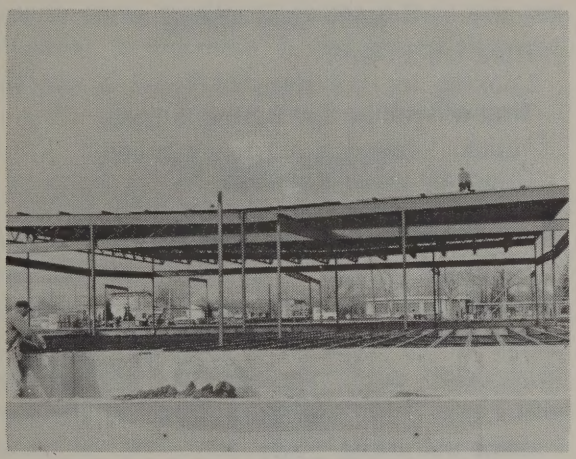
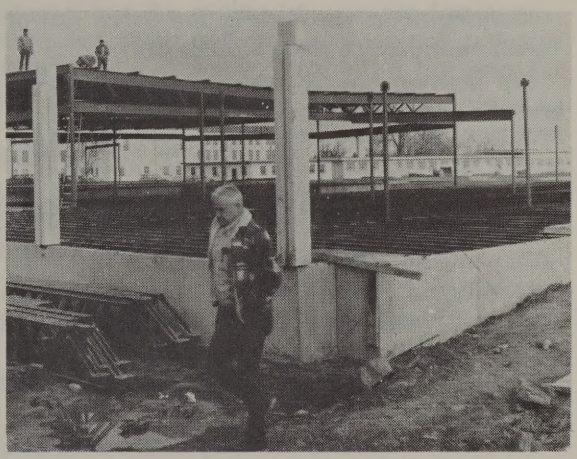
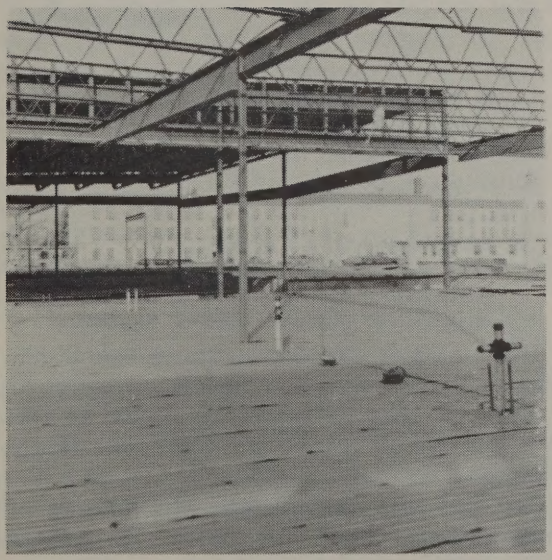
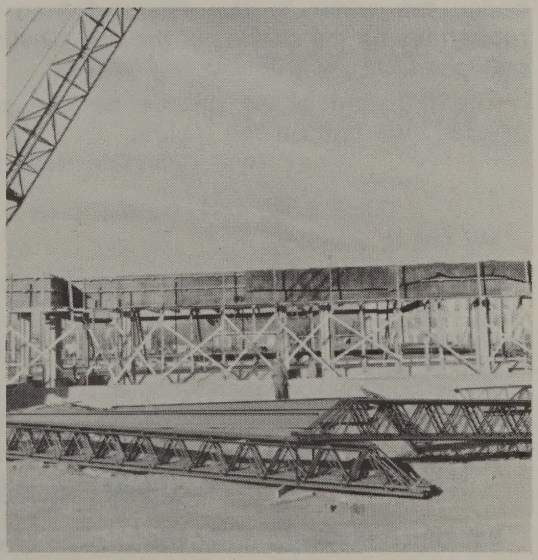
How Is Our New School Coming Along?





FEBRUARY 15—Laying Roof Base and Setting Up First Pillars





MARCH 10—Subflooring Laid and Wall Pillars Ready to Be Tied Together With Concrete Girders

Classroom Chatter

from the Department for the Blind

Monday noon we went to the Pizza Hut on Tenth Avenue South for a pizza party.

We learned how to make pizza. It was fun and the pizza was good.

On our way home we stopped at the Dairy Queen for a treat.

—Third and Fourth Grade

A Trip to the Smelter

Monday afternoon we had a tour of the smelter. There was much noise from the machines that were running. We felt the pellets that were made from the copper, after they had been cooled.

At the aluminum plant they made wire and cable from the aluminum. The aluminum was made into wire in 45 seconds from blocks of aluminum. It is then put on bobbins and then unto spools and shipped out. It is made only when ordered.

—Third and Fourth Grade

In science we proved that air has pressure. We took a gallon can and 1 cup of water. We boiled the water in the can and then we rubbed ice on the outside of the can. The can collapsed.

The pressure of air on the outside was greater than that on the inside.

—Donald Raikes

My Cat

My cat is Spooky,
She is quite kooky.
She licks my ear,
It feels quite queer.
She is very black,
Right down her back.
And that's that,
About my cat.

—Donald Raikes

For our behavior modification I was charted on putting my fingers in my eyes. After a few weeks of trying I have broken the bad habit I had, of putting fingers in my eyes. Now I am doing better work.

—Lyle Burgett

I do not put my fingers in my eyes any more. I have broken my habit. I used charts and had cards to be initialed when I did not do this. Soon I had broken my bad habit. Now I am very happy I did.

—Barbara Bearcrane

Pretty Late Spring

Here we all are,
Looking for the sign,
That will tell us that Spring is here.
"Look, I found a nut that's green,"
Cried my sister Kathleen.
"I found a hole in this bark,"
Cried my brother, Mark.
I found a nest,
I think that best;
And soon the robin will give it the test.

—Tracy Masterson

The Tree

Once there was a tree
That grew by the sea.
It grew in mud
The color of blood.
It was as tall
As a waterfall.

—Tom Masterson

We have learned how to use the dictionary to look up the words we want to know about.

—April Carter

Love

Love comes from above;
He loves everything;
And every human being;
Who is it who loves?
It is God;
He loves everything abroad.

—Brenda Wetherelt

A Visit to KMON Radio Station

On our visit to KMON Radio we saw a teletype that could type sixty words a minute.

Then we went to the KMON studio and we saw the announcer whose name was Reece Morgan.

We saw how Mr. Morgan put records on these things called turntables. He pushes these buttons and a song comes on the air. He also can push them when he wants a commercial to come on.

Next we went to the newsroom. Their news director is Brian Keets and he sits in that

room to read the news which comes off the teletype.

When they have special commercials that they want to broadcast to get people to come in and buy things, they turn this huge light on that shoots way up in the sky. It tells people to come to KMON studio if they are not listening to the radio. It was a nice visit and we had a lot of fun.

—Vicki Burgett

My Head Shakes

I have been working on keeping my head still since September. I can't concentrate on my school work when I shake my head. I used to be reminded about shaking my head about 15 times every morning. I got chips for not shaking my head and these chips were worth many good things. By Christmas I was down to 1 or 2 times a day. After Christmas I was back up to 6 times a day. This time I charted my teacher's reminders on the bulletin board. I had to wear a collar for 20 minutes every time I was reminded. That didn't work so well. Then my teacher stopped reminding me and let me count my own times. I got even worse until I shook it 12 or 13 times in the morning. Now my teacher sets a timer 10 times during the morning for any number of minutes. I never know when it might ring. If I'm shaking my head when it rings, she marks it down. I chart this number on the bulletin board. I have to wear the collar 60 minutes in the afternoon for every time more than once that I shake my head. I have not shaken my head once when the timer rings. I think this is a pretty good idea.

—Chuck Laib

Classroom Chatter, Deaf . . .

Continued from Page Six

pick it up and take it home. It looked big and it was about 18 inches high and had sharp claws.

I walked back home and later I came back to see if the baby owl was still there. It was gone and no one knew if the owl's mother picked it up and took it home.

—Gregory Lakey

The Indian Boy and the Bunny

The Indian boy rowed the boat and arrived at an island. He walked and looked for a bunny. He found a bunny eating carrots. The Indian boy tried to shoot the bunny. But the bunny jumped into a hole. And the bunny said, "Don't shoot me. I will give you something." But the Indian boy caught the bunny, then ran away and got a big black pot and filled it full of water. He built a fire and set the pot on the fire.

He put the bunny in the water and the bunny said, "Ouch." He laid in the hot water pot. When the Indian boy walked close to the black pot, the bunny jumped out and tied up the Indian boy.

The bunny put the Indian boy in the pot and the Indian boy jumped out.

The Indian boy went back home in the boat. The bunny laughed at him.

—Gail Pace

ANNOUNCING THE MORNING NEWS

WITH ED YEATES AND BETH ANN STEWART

ON KCPX TV

WEEKDAYS AT 8:50 A.M.

Beginning Monday, March 15, 1971 THE MORNING NEWS on KCPX-TV (Channel 4) will be interpreted for the deaf by Beth Ann Stewart. This program is a cooperative venture between KCPX-TV and the Utah State Board of Education, Division of Adult Education and Training, Services to the Deaf.

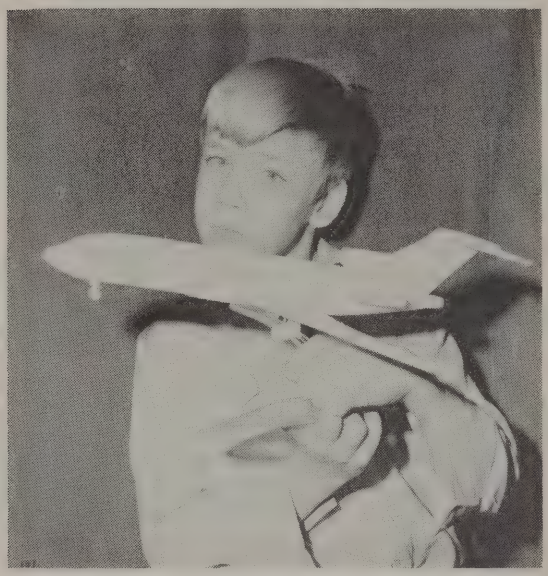
Quotable Quotes

Will is character in action.

—William McDougall

Talk happiness. The world is sad enough without your woe. — Orison Swett Marden

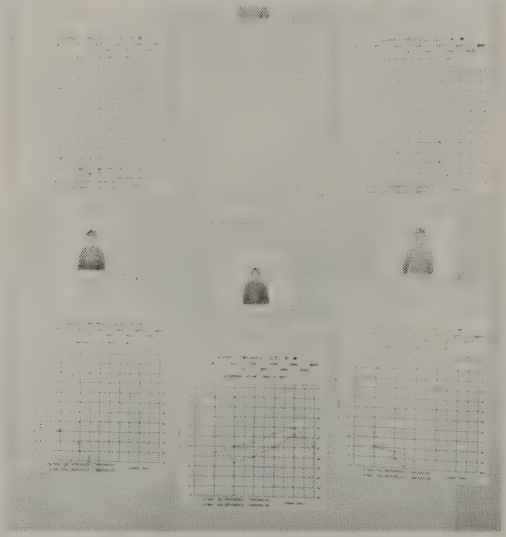
Achievement Corner



PROUD!—This model plane building is an accomplishment for Steven Hoppe who is multiply-handicapped. He is proud of his handiwork. Photo by R. Mullins

FIVE, FOUR, THREE . . .—Mark Allison, the rocket builder, is counting down for the launch. Looking on are (left to right) B. Stiller, D. Rine and M. Huber. This rocket went 750 to 950 feet up. Photo by R. Mullins

In and Around School



SOMETHING ADDED—The classrooms in the Primary Dept. of Hearing Handicapped now are displaying audiograms of the pupils in the respective classes. They have been points of interest for our visitors. Photo by R. Mullins

DELEGATES—Pictured (left to right) are delegate D. Catron, sponsor Jim Pedersen and delegate G. Lakey who will represent our school at the Junior National Association of the Deaf Western Deaf Youth Conference in Vancouver, Wash., this April. Photo by R. Mullins

Behavioral Objectives

By John Deville

Instructor in Science, Louisiana State School for the Deaf

One of the incoming trends of today's modern education is the use of behavioral objectives. Current periodicals and textbooks of the education field give a brief explanation as to what a behavioral objective is.

Before a behavioral objective can be defined, it would be a good start to identify the term **behavior.** Donald E. Mowrer states that:

> Since changing behavior (behavioral modification) is the primary target of every teacher, then we must analyze the behavior the child possesses when he comes to us (entering behavior, or base line) as well as that behavior we wish to exhibit after he has been taught (terminal behavior). In order to modify behavior systematically, we need some sort of lesson (series of operational behavioral objectives) which specifies what it is we wish the learner to do.

Many professional education textbooks and teacher's manuals of various subject areas encourage teachers to use verb statements of their objectives like these: to **understand,** to **know,** to **appreciate**, and others. The behaviors these statements refer to are difficult to measure, and the teacher finds it equally difficult to empirically determine whether or not the terminal behavior has been attained (1). To illustrate the disadvantage of using the underlined verb statements above, suppose an objective is written: to **appreciate** plant life on earth. What kind of change in behavior can the teacher expect from a child? What is it the teacher wants the child to learn? What part of a child's behavior can be measured as an indication that the objective has been fulfilled? Here are some possibilities:

(a) Will the child know the names of all plants on earth?

(b) Will the child learn about photosynthesis that goes on in green plants?

(c) Will the child know why plants are important to him?

(d) Is the child to become so inspired that he would plant a garden immediately?

As can be easily seen, the objectives having a state such as to **appreciate plant life on earth** are too broad and misleading. The learner has only a vague idea of what the teacher wants him to learn.

In various periodicals and books, behavioral objectives have been expressed in several ways: instructional objectives, terminal objectives, expected behavioral outcomes—just to name a few. To clarify the concept of behavioral objectives, Robert F. Mager made these helpful suggestions:

1. An instructional objective is a statement that describes an intended outcome of instruction.
2. An objective is meaningful to the extent it communicates an instructional intent to its reader, and does so to the degree that it describes or defines the terminal expected of the learner.
3. Terminal behavior is defined by:
   a. Identifying and naming the observable act that will be accepted as evidence that the learner has achieved the objective.
   b. Describing conditions (g i v e n s, restrictions) necessary to exclude acts that will not be accepted as evidence that the learner has achieved the objective (2).

(Also see footnote concerning terminal behavior.)

Mager gives a list of verbs to avoid and to use when writing behavioral objectives:

Continued on Page Twelve

Behavioral Objectives . . .

Continued from Page Eleven

To Avoid	To Use
to know	to write
to understand	to recite
to really understand	to identify
to appreciate	to differentiate
to fully appreciate	to solve
to grasp the significance of	to construct
to enjoy	to list
to believe	to compare
to have faith in	to contrast

Some instructors may object that behavioral objectives may not necessarily be of benefit to a school system, because objectives are written according to the needs of the individual class and/or individual pupil. But Lee J. Cronbach emphasizes that:

> Defining objectives in terms of concrete, observable changes to be made in the student's behavior is a necessary preliminary to planning how to teach. Choosing teaching materials and class problems, supervising practice, and evaluating the learner's success — all depend on a definition of the objective in terms of responses to be altered (3).

One writer, Arthur M. Cohen, suggested in first identifying the educational goals in relation to the total educational institution. He explains further that the basis for this working relationship between goals and objectives is this:

> It is not necessary for one to accept an instructional system based exclusively on defined goals; the indefinable, the unmeasurable will be with us, I expect, for generations. But as beginning points for assessing impact of the curriculum, as minimum levels to which we can commit our resources, specific instructional objectives must be considered . . .(4)

One particular disadvantage to behavioral objectives is that, as stated by Cohen:

> The objective is merely presented—not explained or defended. The best prepared performance objective does not necessarily provide any clue as to why the learner should achieve it (4).

Careful motivation of the students to learn what is stated in an objective is the main preoccupation of the teacher.

How can behavioral objectives be useful to both teachers and students alike? James F. Garvey mentions that they are to:

(a) help the teacher decide whether a change in student behavior has occurred, and modify his approach if necessary.

(b) Make it easier for the teacher to discard subject matter not relevant or meaningful to students.

(c) compel the teacher to ask, "What change will mastery of this subject matter bring about in the student's behavior? Is it important that such a change occurs?"

In conclusion, a behavioral objective is a verbal statement of what is to be learned in any particular learning situation. Such an objective should cause a change in a student's behavior which can be observed and measured. Coupled with the reason why as well as what behavioral objective is to be attained can serve as a powerful tool in helping students in any given learning situation. By using the list of verbs prepared by Mager, any teacher can write his set of behavioral objectives that he wants his class to achieve.

Footnote: Terminal behavior refers to the behavior you would like your learner to be able to demonstrate at the time your influence over him ends.

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